



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

WASTE MANAGEMENT DIVISION  
RCRA ENFORCEMENT OFFICE

Purpose: RCRA Compliance Evaluation Inspection

Facility: **DuPont Oakley**  
6000 Bridgehead Road  
Oakley, CA 94561-2490

Mailing Address: Same

U.S. EPA ID Number: CAD 009 151 671

Date of Investigation: September 30, 2005

U. S. EPA Representative: Barry Cofer  
RCRA Enforcement Officer  
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Facility Representative: B.C. (Bob) Deaver  
DuPont Representative  
Oakley Site Manager  
DuPont Corporate Remediation Group  
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Report Prepared By: Barry Cofer

Blending and packaging operations for the remaining stocks of TiO<sub>2</sub> and Freon products continued through November 30, 1998.<sup>3</sup>

DuPont Oakley submitted their initial Notification of Hazardous Waste Activity (EPA Form 8700-12) form in July of 1980, followed by Part A of their permit application (EPA Form 3510-1) in November of 1980. Revisions indicating the treatment and storage of a variety of hazardous wastes in tanks, containers, and surface impoundments continued until February of 1991, when the last Notification on file at EPA was received. DuPont's interim status ended on November 8, 1992.<sup>4</sup>

A review of manifests and manifest summary information (Attachment 2) indicates that DuPont is an episodic generator of RCRA hazardous waste, usually operating as a conditionally exempt small quantity generator generating less than 100 kilograms of non-acute hazardous waste per calendar month and accumulating less than 1,000 kilograms of hazardous waste on-site at any time. DuPont periodically will excavate and remove a large quantity of waste, typically soil contaminated with lead (EPA Hazardous Waste Number D008), and becomes a Large Quantity Generator (LQG) for that month.

DuPont was last inspected for hazardous waste compliance by the State of California's Department of Toxic Substances Control (DTSC) in June of 1998. No violations were noted.

DuPont was also visited by EPA in 1995 to gather information for the Land Disposal Restrictions Phase IV Supplemental Rulemaking Docket (Attachment 3).

### **Inspection:**

One of the former facility buildings is occupied by a tenant, DuPont Kansai. DuPont Kansai, then a joint operation, tests automotive paints. DuPont Kansai operates under a different RCRA Identification Number, CAR 000 073 429, and was not visited during this inspection. Subsequent research indicates the former joint operation now operates as DuPont Performance Coatings.

Issues such as the past handling of non-exempt mineral processing wastes, and the scope and adequacy of the facility's remediation efforts, were not determined as part of this inspection. Potential waste generation, accumulation, and storage areas were inspected.

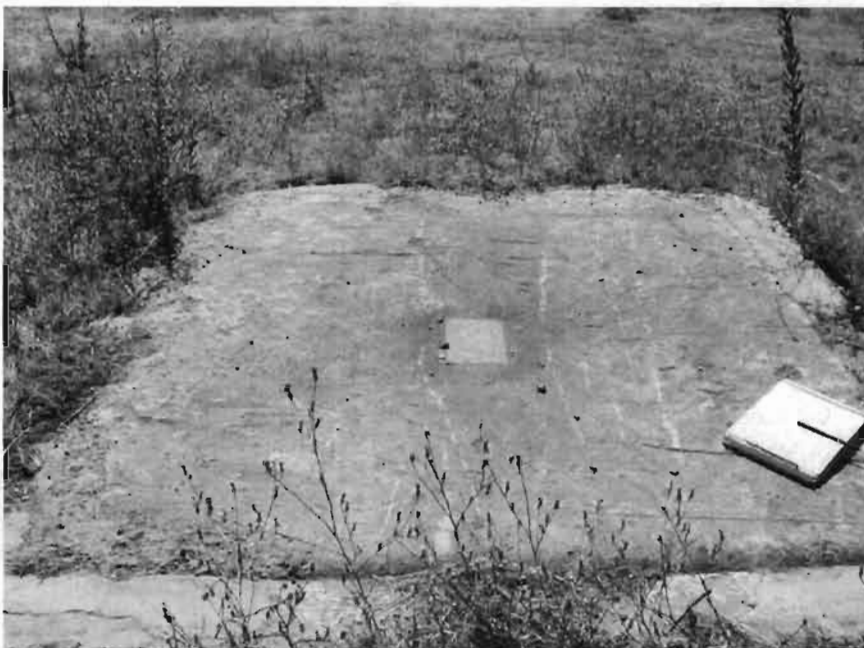
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<sup>3</sup> Phase 2 Surface Water and Sediment RFI Work Plan for DuPont Oakley Site, Little Break in situ flux chamber investigation, March 25, 2005, section 2.0

<sup>4</sup> 40 CFR § 270.73(g)



The building was equipped with a fire extinguisher and spill cleanup equipment. No hazardous waste containers were present.



The former  
injection well has been  
sealed.

The facility representative stated they do a monthly walk through of the formerly used areas as part of their Storm Water Pollution Prevention Plan (Attachment 4). Soil excavation and groundwater remediation were the only activities noted on site that may produce hazardous waste. As noted, DuPont is mitigating groundwater plumes. According to the facility representative, the plumes are moving about six inches a year towards the San Joaquin River.

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waste solids from titanium tetrachloride production.” The production of titanium tetrachloride is a preliminary step in the production of titanium dioxide.

In 2001, after the facility ceased manufacturing titanium dioxide, K178 was added to the list of hazardous wastes from specific sources in 40 CFR § 261.32. K178 wastes are: “Residues from manufacturing and manufacturing-site storage of ferric chloride acids formed during the production of titanium dioxide using the chloride-ilmenite process.” General information on the chloride-ilmenite process can be found in Attachment 7.

When informed during this inspection about the new waste listing, the DuPont representative noted they had used rutile ore, a black sand obtained from Australia and Florida, as the source of titanium for the titanium dioxide plant. Rutile ore contains less iron than ilmenite ore, and is produced using the non-listed Chloride Process (see description in Attachment 7). Information obtained for the 1995 EPA site visit noted synthetic rutile was used, and quoted a 1987 DuPont memo stating an “ilmenite-type” ore was used (Attachment 3). In their 1996 mineral processing proposal on the chloride-ilmenite process, EPA stated that “...Du Pont conducts a similar process in Antioch, California using rutile, which has a lower iron content than ilmenite.” See Attachment 8. In a 1982 modification of their Part A RCRA permit application, DuPont noted “...the processing of rutile (ilmenite) ore...” at this facility (Attachment 9).

There was insufficient information available during this inspection to confirm if DuPont ever used the subsequently listed chloride-ilmenite process, or used a similar process that did not meet the listing description.



Pan of the former titanium manufacturing plant.

When operating, DuPont used the ferric chloride acids formed during the production of titanium dioxide to produce “Sierra-Crete”, a material sold for road bed use. The EPA site visit report contains a description of the process (Attachment 3).



C Pond, one of three closed and filled concrete lined lead waste storage ponds.



Beavers have dammed the central slough. DuPont did not conduct manufacturing operations in this area.

**List of Attachments:**

1. Facility maps and diagrams.
2. Manifests, facility manifest log, and manifest summary information.
3. EPA Site Visit Report.
4. Storm Water Pollution Prevention Plan inspection log.
5. DuPont and DTSC brochures on site remediation and redevelopment activities.
6. Furnace brick STLCL analysis and landfill approval records.
7. Titanium Tetrachloride Production by the Chloride Ilmenite Process.
8. 61 FR 2357.
9. DuPont letter dated March 15, 1982.
10. Weekly inspection report.

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FROM: Barry Cofer

EXT: 2-3303 MAIL CODE: WST-3

FACILITY NAME: DuPont Oakley Site

	Initials	Date
1. 1st Inspector (Report Writer):	BC	4/22/10
-- RCRAInfo Entry (CEI Date, CE145)		
-- ICIS Inspection Conclusion Data Sheet		
2. 2nd Inspector (Reviewer): N/A		
3. QA/QC Reviewer (for Formal Enforcement)		
4. Supervisor: Amy Miller	ACM	5/2/10
5. Al Murray (Admin):		
6. 1st Inspector (File):		

**NOTES:**